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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/529,083	06/27/2005	James Robert Hewitt	CAF-33502/03	1845
25/006 7590 04/28/2009 GIFTORD, KRASS, SPRINKLE, ANDERSON & CITKOWSKI, P.C. PO BOX 7021 TROY, MI 48007-7021				
EXAMINER KASZTEJNA, MATTHEW JOHN				
ART UNIT 3739		PAPER NUMBER		
MAIL DATE 04/28/2009		DELIVERY MODE PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/529,083

**Applicant(s)**

HEWIT ET AL.

**Examiner**

MATTHEW J. KASZTEJNA

**Art Unit**

3739

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 March 2005.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 49-71 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 49-71 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 24 March 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-8508)  
Paper No(s)/Mail Date 6/27/5  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Claim Objections***

Claim 61 is objected to because of the following informalities: it is unclear what is meant by "when dependent on claim 2". It appears to be a typographical error which should be deleted. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 49-52, 54-62 and 68-71 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,485,409 to Voloshin et al.

**In regard to claim 49**, Voloshin et al. disclose a transportation apparatus for transportation of an inspection device within a body cavity, the apparatus comprising: a carrier 70 for insertion into an opening of the body cavity, the carrier moveable between a collapsed position and an extended position where the carrier extends along a length of the cavity (see Col. 6, Lines 9-26); and a guide member 60 coupled to the carrier, the guide member adapted to be carried into the cavity by the carrier when the carrier is moved to the extended position, such that the guide member acts as a guide for transportation of the inspection device within the cavity (see Fig. 3 and Col. 5, Lines 50-67).

**In regard to claims 50-52**, Voloshin et al. disclose a transportation apparatus, wherein the guide member is moveable between a relaxed state and a rigid state, the guide member acting as a guide when in the rigid state and wherein the guide member is reversibly moveable between the rigid state and the relaxed state (see Fig. 1 and Col. 5, Lines 1-10).

**In regard to claim 54**, Voloshin et al. disclose a transportation apparatus wherein the guide member is at least partly rigid (see Fig. 1).

**In regard to claim 55**, Voloshin et al. disclose a transportation apparatus, wherein the guide member comprises an endoscope (see Col. 4, Lines 35-40).

**In regard to claims 56-58**, Voloshin et al. disclose a transportation apparatus, wherein the guide member is releasably coupled to the carrier (see Fig. 3 and Col. 5, Lines 57-65).

**In regard to claims 59-62**, Voloshin et al. disclose a transportation apparatus, wherein the guide member comprises an elongate support with a plurality of engagement portions 68 mounted on the support and wherein the engagement portions comprise bodies defining an engagement surface (see Fig. 3 and Col. 6, Lines 1-8).

**In regard to claims 68**, Voloshin et al. disclose a transportation apparatus, wherein the carrier is flexible when in the collapsed position and adapted to be constrained by a wall of the body cavity when in the extended position (see Fig. 3 and Col. 6, Lines 10-26).

**In regard to claims 69-71**, Voloshin et al. disclose a transportation apparatus, wherein the carrier is inflatable, an inflatable elongate balloon and is adapted to be

inserted into the opening of the body cavity in an everted position (see Fig. 3 and Col. 6, Lines 10-19).

Claims 49-55 and 63 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,251,611 to Zehel et al.

**In regard to claim 49**, Zehel et al. disclose a transportation apparatus for transportation of an inspection device within a body cavity, the apparatus comprising: a carrier 11 for insertion into an opening of the body cavity, the carrier moveable between a collapsed position and an extended position where the carrier extends along a length of the cavity; and a guide member 10 coupled to the carrier, the guide member adapted to be carried into the cavity by the carrier when the carrier is moved to the extended position, such that the guide member acts as a guide for transportation of the inspection device within the cavity (see Figs. 1-2 and Col. 5-, Lines 1-27).

**In regard to claims 50-53**, Zehel et al. disclose a transportation apparatus, wherein the guide member is moveable between a relaxed state and a rigid state, the guide member acting as a guide when in the rigid state and wherein the guide member is reversibly moveable between the rigid state and the relaxed state (see Col. 3, Lines 20-32).

**In regard to claim 54**, Zehel et al disclose a transportation apparatus wherein the guide member is at least partly rigid (see Fig. 2).

**In regard to claim 55**, Zehel et al disclose a transportation apparatus, wherein the guide member comprises an endoscope (see Col. 6, Lines 13-16).

**In regard to claim 55**, Zehel et al disclose a transportation apparatus, wherein the guide member includes a plurality of locking elements for locking the guide member in a rigid state (see Figs. 3-4 and Col. 7, Lines 15-50).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 64-67 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,251,611 to Zehel et al. in view of U.S. Patent No. 6,858,005 to Ohline et al.

**In regard to claims 64-67**, Zehel et al disclose a transportation apparatus, wherein the guide member includes a plurality of locking elements for locking the guide member in a rigid state (as rejected above) but are silent with respect to wherein the locking elements comprise shape memory alloy (SMA) locks. Ohline et al. teach of an analogous endoscopic apparatus wherein the controllable portion 28 is composed of at least one segment 30, and preferably several segments 30, which are controllable via a computer and/or electronic controller (controller) 45 located at a distance from the endoscope 20. Each of the segments 30 has tendons mechanically connected to actuators to allow for the controlled motion of the segments 30 in space. The actuators driving the tendons may include a variety of different types of mechanisms capable of

applying a force to a tendon, such as shape memory alloy wires. If shape memory alloy wires are used, they are preferably configured into several wire bundles attached at a proximal end of each of the tendons within the controller. Segment articulation may be accomplished by applying energy, e.g., electrical current, heat, etc., to each of the bundles to actuate a linear motion in the wire bundles which in turn actuate the tendon movement. The linear translation of the actuators within the controller may be configured to move over a relatively short distance, e.g., within a few inches or less such as  $\pm 1$  inch, to accomplish effective articulation depending upon the desired degree of segment movement and articulation (see Figs. 3-4 and Col. 8, Lines 17-40). It would have been obvious to one skilled in the art at the time the invention was made to use SMA locks in the apparatus of Zehel et al. to provide more effective efficient control over the tensioning and relaxing of the control wires within the guide member as taught by Ohline et al.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MATTHEW J. KASZTEJNA whose telephone number is (571)272-6086. The examiner can normally be reached on Mon-Fri, 8:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Linda C.M. Dvorak can be reached on (571) 272-4764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Matthew J Kasztejna/  
Examiner, Art Unit 3739

4/27/09